

AMENDMENT TO THE CLAIMS

1. (Currently amended) A repetitive control device comprising:
an adder to which a compensated signal is inputted;
a feedback signal system for sequentially updating and storing an output signal from the adder, and outputting the signal to the adder;
said feedback signal system comprising,
a filter which has, as a delay element, a memory which stores signal information for one rotation of a disc into divided plural memory areas of the memory,
a gain element which multiplies an output from the filter by a value not larger than 1, and inputs the result to the adder, and
said filter being operated using a clock signal that is equal to an operation frequency of a driving signal, or a divided frequency thereof,
wherein the driving signal corresponds to the compensated signal.

2. (Original) A repetitive control device as defined in Claim 1 wherein
said filter has a register connected in parallel with the memory, and records higher-order bit data of an input signal in the memory while records lower-order bit data in the register, during a filtering process by the filter.

3. (Previously presented) A repetitive control device as defined in Claim 2 wherein
a word length of the higher-order bit data recorded in the memory is equal to a word length of data of the compensated signal that is added in the adder, or a word length of a DA converter to which the output of the adder is inputted.

4. (Previously presented) A repetitive control device as defined in Claim 1 wherein said filter includes a low-pass filter, and uses said memory as a delay element for the low-pass filter.

5. (Previously presented) A repetitive control device as defined in Claim 1 wherein said filter is a band-pass filter comprising a low-pass filter and a high-pass filter, and uses said memory as a delay element for the low-pass filter.

6. (Withdrawn – currently amended) A repetitive control device including an integral term operation part of a PID servo filter, which performs an arithmetic processing using a clock signal that is equal to an operation frequency of a driving signal outputted from the PID servo filter, or a divided frequency thereof, said integral term operation part comprising:

an adder to which a servo error signal is inputted; and

a feedback signal system for sequentially updating an output signal from the adder and inputting the signal to the adder; and

said feedback signal system comprising,

a memory in which signal information for one rotation of a disc is divided to be stored in plural memory areas, and

a gain element which multiplies an output from the memory by a value not larger than 1, and inputs the result to the adder,

wherein, when performing an integral operation to the inputted servo error signal, the integral operation uses the memory as a delay element for the input signal.

7. (Original) An optical disc device performing recording or playback of an optical disc, which is equipped with a repetitive control device as defined in Claim 1.

8. (Withdrawn) An optical disc device performing recording or playback of an optical disc, which is equipped with a repetitive control device as defined in Claim 6.

9. (Canceled)